CLAIMS

1. A process for the manufacture of a decorative board, which board includes at least one thermosetting resin impregnated paper layer, wherein a decor paper in the form of a sheet, provided with a plurality of decor sections, each decor section being intended to constitute a decor of a decorative panel, is placed as a surface layer on a base layer and bonded thereto by pressing under elevated pressure, wherein a plurality of press plates or press foils, each press plate or press foil being provided with a surface structure intended to match at least one decor section of the decor paper, are accurately positioned on top of the thermosetting impregnated paper layer before the pressing and is after the pressing separated from the laminate achieved, wherein the laminate will be provided with a decor surface with a matching surface structure which is in register with the decor of the decor paper.

2. A process according to claim 1 wherein at least one wear layer is arranged on top of the decor paper in order to increase the wear resistance, that the at least one wear layer is arranged between the decor paper and the press plate or press foil during the lamination procedure.

3. A process according to claim 2 wherein the at least one overlay paper is impregnated with melamine-formaldehyde resin before the lamination procedure.

4. A process according to claim 3 wherein the at least one overlay paper further comprises hard particles with an average particle size in the range 50 nm - 150 μm.

5. A process according to claim 4 wherein the uppermost surface of the overlay paper facing the press plate or press foil is provided with hard particles with an average particle size in the range 50 nm - 30 μm.

6. A process according to claim 1 wherein the base layer consists of a particle board or a fibre board.

7. A process according to claim 6 wherein the base layer consist of a particle board or fibre board with at least one base paper layer of for example Kraft-paper arranged thereon, the base paper layer being impregnated with a thermosetting resin selected from the group consisting of melamine-formaldehyde, phenol-formaldehyde, urea-formaldehyde and combinations thereof.

8. A process according to claim 1 wherein the positions of the decor sections of the decor paper is detected by means of a camera array sending data input to a computer, that the data input from the camera array is used for accurately guiding the positioning of the press plates or press foils on top of the paper layer.

9. A process according to claim 1 wherein the decor paper has a longitudinal and a latitudinal direction, and that the decor paper contains longitudinal rows of longitudinally arranged panels.

10. A process according to claim 1 wherein the decor paper has a longitudinal and a latitudinal direction, and that the decor paper contains longitudinal rows of latitudinally arranged panels.

11. A process according to claim 9 or 10 wherein the panels have a rectangular shape.

12. A process according to claim 9 wherein the panels have a square shape.

13. A process according to claim 1 wherein the decor paper is provided with means for positioning selected from the group consisting of colour dots, colour lines, grid patterns holes, code lines, indentations and combinations thereof, that said positioning means are arranged in a predetermined relation to the decor sections.

14. A process according to claim 8 wherein the decor paper is provided with means for positioning selected from the group consisting of colour dots, colour lines, grid patterns holes, code lines, indentations and combinations thereof, that said

positioning means are arranged in a predetermined relation to the decor sections.

15. A process according to claim 14 wherein the positioning means are detected by the camera array for positioning of the press plates or press foils, that the positioning means are further used for guiding the cutting of the decorative board into panels.

16. A process according to claim 15 wherein the panels are provided with joining means at the edges, that the positioning means are used for accurately guide the position of the edges, and thereby also the joining means, in relation to the decor.

17. A process according to claim 1 wherein the positions of the decor sections of the decor paper is detected by means of a second camera array sending data input to a computer, that the data input from the second camera array is used after the pressing for accurately guiding the positioning of tools selected from the group consisting of; cutting and milling tools used for cutting the decorative board into panels and providing said panels with means for joining.

18. A process according to claim 17 wherein the second camera array is further used for controlling the quality achieved wherein the camera array comprises at least one matrix colour camera for detecting colour of the decor paper and at least one reflection camera for detecting the surface structure, that the data input from the two camera types are compared in a control computer for evaluation of alignment between decor and surface structure.

19. A process according to claim 18 wherein alignment evaluation data of the control computer is used by the computer for calculating statistical process guiding of the positioning of the press plates or press foils during the lamination procedure.